

and sincere. It can be recommended without reservation.

The book is beautifully printed and gotten up. It is a pity that the translator did not consult a doctor, which would have avoided several errors which jar on the professional man.

MAZŸCK P. RAVENEL

Step by Step in Sex Education—
By Edith Hale Swift, M.D. New York: Macmillan, 1938. 207 pp. Price, \$2.00.

This is a unique presentation of sex education material arranged in dialogue form between parents and a boy and girl in the normal relations of family life. It proceeds step by step as the children advance in age to give them a scientific nomenclature of sex anatomy and physiology, at the same time revealing to each child the personal and social implications of sex. It is written primarily for parents who are at a loss to know how to approach the subject when confronted by the curiosity and perplexing questions which modern children present. It is clothed in everyday conversational style and is clear and concise without a trace of morbidity, although the author does not stop at introducing the most intimate situations in sex relations. The only part of the book which might arouse controversy is that dealing with contraception, which is confined to a few pages at the end.

RICHARD A. BOLT

Fluorine Intoxication—A Clinical-Hygienic Study, with a review of the literature and some experimental investigation—By Kaj Roholm. Copenhagen: Nyt Nordisk Forlag—London: H. K. Lewis and Co. Ltd., 1937. 364 pp.

In a succinct review, it is impossible to do adequate justice to what is probably the outstanding contribution to the literature of fluorine. The thorough

manner in which the author deals with the subject expresses itself in a monograph which includes 57 tables, 96 figures, and a bibliography of 893 references.

Although primarily begun as an industrial hygiene study, the author has encompassed the whole field of fluorosis in a manner that makes the book one of equal interest to those in other branches of medicine, especially pediatricians, orthopedists, and radiologists, as well as epidemiologists, dentists, biochemists, veterinarians, and agriculturists.

The discussion of the prevention of fluorine intoxication embraces the whole group of fluorine compounds found in industry. The author states (p. 310) that "it would be desirable to forbid the employment of males under 18 years and females as a whole, on work with fluorine compounds which give off dust or vapour." The necessity for control of all sources where fluoric dust or vapor is generated, is emphasized in detail, not only with respect to the workers but to that area surrounding the factory that might become contaminated by volatile fluorine compounds.

Although numerous experiments in induced experimental fluorosis have shown considerable storage of fluorine in the bones with a resultant development of defective osseous structure, Roholm demonstrates that comparable conditions are not uncommon among cryolite workers.

In a chapter entitled "Post Mortem Examinations of Two Cryolite Workers," the author records (p. 184): "After *Skeletonizing*, the bones present marked changes. All are of a chalky-white color, the surface is irregular and the weight considerably increased." Calcification of the ligamentous attachments was commonly observed. The fluorine content of the costal bones was 9.9 and 11.2 mg. per gm. of bone ash respectively whereas about 0.5–2.1 mg. of fluorine per gm. of bone ash is re-

ported for 11 normal human costal bone samples. These two workers had been exposed for 9 and 24 years respectively to cryolite ($\text{Na}_3 \text{Al F}_6$) dust with a calculated fluorine intake daily of about 0.20–0.35 mg. of fluorine per kg. of body weight.

The author also observes that among 5 children "born of women who either worked at the cryolite factory before or during pregnancy or started to work soon after the birth, 3 showed a mottled enamel condition of the teeth" years later when the permanent teeth erupted.

From a diagnostic viewpoint, Roholm divides chronic fluorosis into three different stages.

1. The dental anomaly known in man as mottled enamel and in the herbivora as darmous or gaddur

2. Osteosclerosis, an occupational disease among cryolite workers and possibly other workers exposed to relative large amounts of fluoride

3. An osteomalacia-like disease endemic among herbivora in the environs of certain factories in Europe

The dosage that can produce the various forms of this chronic intoxication is uncertain according to the author, but seems to rise from (1) to (3).

For those interested in any of the various phases of fluorine intoxication, this book is especially recommended.

H. TRENDLEY DEAN

The Subnormal Mind—By Cyril Burt, M.A., D.Sc. (Oxon.). (2nd ed.) New York: Oxford University Press, 1937. 372 pp. Price, \$5.00.

This volume is an assemblage of the third series of Heath Clark Lectures, delivered at The London School of Hygiene and Tropical Medicine in 1933, revised for publication. That a second edition was called for in a short time—the first appeared in 1935—is practical evidence of the favor which the book has received.

The opening chapter is devoted to the normal mind, hence the author proceeds to his presentation of the mentally deficient, the dull or backward, the delinquent, and the asthenic and the sthenic neuroses.

The American reader will be interested in the discussion of such English legislation as the Mental Deficiency Act of 1927. The author has brought together the findings of many English studies, including his own, and from these he presents statistical evidence as to prevalence and causes of the conditions dealt with. From these facts he draws his conclusions in what appears to be a reasonable and fair manner. The relationship between such environmental conditions as lead to lack of rest and to retardation in school is brought out forcibly.

Regarding the delinquent, the conclusion is: "About the value of preventive psychology or medicine in dealing with the adult criminal, I am, indeed, pessimistic; over the treatment of the juvenile offender, I am almost always hopeful, and the younger the case, the higher my hopes."

The book is well printed, the style is good, and the material well organized. There is no undue repetition, and the author is not dogmatic in his own point of view. Throughout, there runs a pleasant humanistic touch which gives conviction regarding the author's opinion. This volume is a worth while addition to the library of any worker in the broad field of child welfare.

GRANT FLEMING

The Collapse Therapy of Pulmonary Tuberculosis — By John Alexander, M.D., F.A.C.S. Springfield, Ill.: Thomas, 1937. 705 pp. Price, \$15.00.

The subject of collapse therapy of tuberculosis is covered in detail in this excellent book. Chapters one and two are devoted to the perspective of col-